

Pollution Prevention Checklist for Your Business

The following checklist will help you identify opportunities to save your business money and reduce its impact on the environment. Checklists tailored to a specific business type are also available by calling MDE's Pollution Prevention Program at 410-537-4119.

MATERIAL RECEIVING

- Establish a centralized purchasing program.
- Use a "Just-in-Time" ordering system to prevent overstocking of raw materials and hazardous materials, which may become obsolete or outdated.
- Initiate a first in-first out (FIFO) use policy for all materials purchased.
- Establish an inventory control program to trace chemicals from cradle to grave.
- Inspect material before accepting a shipment to ensure material is to specifications and that containers are in good condition.
- Date materials containers as received.
- Rotate chemical stock.
- Develop a running inventory of unused chemicals for other departments' use or advertise with a waste exchange.
- Select quantity and package type to minimize packing waste. Use rinseable/recyclable or reusable containers.
- Switch to a less hazardous raw material.

RAW MATERIAL AND PRODUCT STORAGE

- Establish a spill prevention, control, and countermeasures plan.
- Maintain Material Safety Data Sheets to ensure correct handling of spills.
- Install overflow alarms for all tanks and vessels.
- Store containers in such a way as to allow for visual inspection for corrosion and leaks.
- Provide a covered area to protect materials and containers from degradation due to sunlight and precipitation.
- Provide adequate lighting in the storage area.
- Maintain distance between different chemicals to prevent cross-contamination.
- Stack containers in a way to minimize the chance of tipping, puncturing, or breaking.
- Install secondary containment areas.
- Cover individual containers to prevent evaporation, contamination by foreign particles and the frequency of spills. Use floating-roof tanks for VOC control.
- Use vapor recovery systems.
- Maintain a clean, even surface in transportation areas.
- Empty drums and containers thoroughly before cleaning or disposal.
- Use proper tools and procedures for moving containers.

OPERATION AND PROCESS CHANGES

- Perform overall material balances and estimate the quantity and dollar value of all losses.
- Inspect equipment, pumps, valves and pipes for leaks.
- In products and plant maintenance, consider using low VOC paints and coatings, and improve paint spray equipment and technique to minimize waste.
- Maximize dedication of process equipment to reduce cleaning frequency.
- Plan production schedule to reduce the generation of hazardous waste and to allow lower cleaning frequency. For example, schedule tint mixing from light to dark to avoid excessive cleaning.
- Use squeegees and wipers to recover residual materials prior to rinsing.
- Use centrifuge or other methods to remove excess solvent in cleanup rags before laundering.
- Clean equipment immediately after use to minimize the amount of solvent needed.
- Use cleaning systems that avoid or minimize solvents and clean only when needed.
- Standardize solvent usage within the facility and reclaim solvent by distillation.
- Consider substituting aqueous cleaners for petroleum-based or chlorinated solvents.
- Consider biodegradable and less toxic cleaners.
- Segregate waste streams to improve opportunities for recycling.
- Look for another company to accept your waste by-product and explore waste exchanges.

WATER CONSERVATION

- Identify water inflow and outflow from each unit and consider opportunities for in-process recycling.
- Use high pressure, low volume water nozzles.
- Maximize dry cleanup -- attempt to cleanup as much as possible before hosing down surfaces.
- Reduce use of constant running sinks.

ENERGY EFFICIENCY

- Conduct an energy audit that addresses heating/cooling, lighting, steam losses, and motors.
- Eliminate waste heat by insulating piping and heat generating equipment.
- Consider cogeneration and renewable energy.
- Consider switching to fluorescent lights with electronic ballasts, low mercury vapor lamps, compact fluorescents, low- energy "Exit" signs, solar-powered exterior lighting, timed switches and motion sensors.
- Reduce vehicle fleet and employee trips.
- Purchase energy efficient office equipment that offers a low-power "sleep" mode when not in use.
- When building or renovating, increase daylight in workspaces, and use energy efficient building materials.

MANAGEMENT

- Emphasize the importance of pollution prevention to staff by explaining the economic and environmental ramifications of hazardous waste general and disposal, raw materials usage, and worker safety.
- Establish facility-wide pollution prevention goals.
- Perform facility-wide pollution prevention opportunity assessments.
- Provide training for proper handling of materials and operation of equipment to minimize material waste and energy and water use.
- Consider closer supervision to improve production efficiency and reduce inadvertent waste generation.
- Create forums for employees and supervisors to identify ways to reduce waste.
- Solicit and reward employee suggestions for waste reduction ideas.
- Allocate waste treatment and disposal costs to the operations that generate the waste.
- Allocate utility costs to specific processes or products.
- When planning any future plant modernization, consider more efficient equipment, which can reduce waste volumes while meeting or exceeding current production rates.
- Consider modifying the specifications, design or composition of your product to reduce life-cycle costs. Look for ways to reduce the waste generated and raw materials and energy consumed after your product leaves your facility. For example, reduce packaging, increase the energy efficiency and durability of your product, make replacement parts available, lower its toxic content, and use recyclable/reusable/ returnable components.
- Join [Businesses for the Bay](#) and receive recognition for your efforts



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